REMARKS

Initially, in accordance with Applicants' duty to provide information regarding the substance of an interview, a telephonic interview was held between Applicants' representative and Examiner Sain on May 26, 2006. Applicants would like to thank Examiner Sain for the courtesies extended during the telephonic interview. During that interview, the rejection based on Kirsch et al. (U.S. Patent No. 6,070,158) in view of Armstrong et al. ("WebWatcher: A Learning Apprentice for the World Wide Web," 1995) was discussed. The Examiner agreed to consider the arguments and the new claims presented herein upon the filing of this Amendment.

In the final Office Action, the Examiner rejected claims 1, 2, 4-6, 11, 13, 17, 18, 22, 24-31, and 33 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al. (U.S. Patent No. 6,070,158) in view of Armstrong et al. ("WebWatcher: A Learning Apprentice for the World Wide Web," 1995); rejected claims 3, 12, 14-16, 20, and 23 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al. in view of Armstrong et al. and Pant et al. (U.S. Patent No. 6,012,053); rejected claims 7, 9, and 10 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al. in view of Armstrong et al. and Page (U.S. Patent No. 6,285,999); rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al. in view of Armstrong et al. and Lazarus et al. (U.S. Patent No. 6,134,532); rejected claims 19 and 21 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al. in view of Armstrong et al. and Brown et al. (U.S. Patent No. 6,665,838); rejected claims 32 and 34 under 35 U.S.C. § 103(a) as unpatentable over Kirsch et al.; and rejected claim 37 under 35 U.S.C. § 103(a) as unpatentable over Ballard (U.S. Patent No. 5,987,457) in view of Armstrong et al.

By this Amendment, Applicants amend claims 1, 4, 6, 24-32, and 37 to improve form,

and add new claims 38-40. Applicants respectfully traverse the Examiner's rejections under 35

U.S.C. § 103. Claims 1-34 and 37-40 are pending.

REJECTION UNDER 35 U.S.C. § 103 BASED ON KIRSCH ET AL. AND ARMSTRONG ET AL.

In paragraph 3-1 of the final Office Action, the Examiner rejected claims 1, 2, 4-6, 11,

13, 17, 18, 22, 24-31, and 33 under 35 U.S.C. § 103(a) as being allegedly unpatentable over

Kirsch et al. in view of Armstrong et al. Applicants respectfully traverse the rejection.

Independent claim 1, for example, is directed to a computer-implemented method for

modifying documents to aid a user in determining which entry of a plurality of entries in the

documents to choose. The method comprises identifying a document that is stored on a server in

a network and that includes a plurality of entries; determining a score for each of a number of the

entries in the identified document based on a score of a document associated with the entry;

modifying the identified document based on the determined scores; and providing the modified

document to the user.

Neither Kirsch et al. nor Armstrong et al., whether taken alone or in any reasonable

combination, discloses or suggests the combination of features recited in claim 1. For example,

neither Kirsch et al. nor Armstrong et al. discloses or suggests determining a score for each of a

number of the entries in an identified document, stored by a server in a network, based on a score

of a document associated with the entry.

The Examiner alleged that Kirsch et al. discloses this feature and cited column 4, lines 1-

5, and column 5, lines 38-42, of Kirsch et al. for support (final Office Action, pages 2-3).

Applicants respectfully disagree.

Kirsch et al. is directed to performing parallel searches of multiple indexes to produce

multiple preliminary or partial search reports and merging the search reports into a final search

report (col. 9, lines 6-48). Kirsch et al. discloses determining relevancy scores for the documents

listed in the search reports based on the number of occurrences of terms in the documents (col. 9,

lines 25-35).

At column 3, line 67, through column 4, line 5, Kirsch et al. discloses:

> The search engine operates to intersect the list with the collection index to identify a
> predetermined document from the collection of documents. The search engine includes
> an accumulator for summing a relevancy score for the predetermined document that is
> then related to the intersection of the predetermined document with the list.

In this section, Kirsch et al. discloses that the relevancy score for a predetermined document is

related to the intersection of the predetermined document with a list of search terms. Nowhere in

this section, or elsewhere, does Kirsch et al. disclose or suggest determining a score for each of a

number of the entries in an identified document, stored by a server in a network, based on a score

of a document associated with the entry, as required by claim 1.

At col. 5, lines 38-42, Kirsch et al. discloses:

> A directed N-way intersection of the preliminary search reports is performed to produce a
> search report with unique document identifications. The search scores of intersected
> documents from the preliminary reports are summed to yield an aggregate relevancy
> score for each of the documents.

In this section, Kirsch et al. discloses that the relevancy scores for documents appearing in

multiple search reports are summed to yield aggregate relevancy scores. Nowhere in this

section, or elsewhere, does Kirsch et al. disclose or remotely suggest determining a score for

each of a number of the entries in an identified document, stored by a server in a network, based

on a score of a document associated with the entry, as required by claim 1.

From the above-identified sections, it appears that the Examiner is alleging that the final

search report produced in <u>Kirsch et al.</u> is equivalent to an identified document stored on a server

in a network, as required by claim 1. Applicants disagree. <u>Kirsch et al.</u> specifically discloses

that the final search report is generated by providing a search query to a group of search engines,

performing searches based on the search query by the search engines to produce preliminary

search reports, and merging the preliminary search reports to produce the final search report (col.

13, lines 30-49). Therefore, the final search report is not an identified document stored on a

server in a network, as required by claim 1. Instead, the final search report is dynamically

generated in response to submission of a search query (col. 13, lines 30-49).

    <u>Armstrong et al.</u> discloses a WebWatcher that has learned knowledge of how to search

outward from a page on which it was invoked and uses this knowledge to suggest a hyperlink

that the user should take to get to a page that satisfies the user's search (page 3, left column, first

full paragraph; page 3, right column, fourth full paragraph). <u>Armstrong et al.</u> discloses

highlighting the link that is most promising (page 3, left column, second full paragraph).

Nowhere does <u>Armstrong et al.</u> disclose or suggest, however, determining a score for each of a

number of the entries in an identified document, stored by a server in a network, <u>based on a score</u>

<u>of a document associated with the entry,</u> as required by claim 1. Instead, <u>Armstrong et al.</u>

discloses determining the probability that following a hyperlink on a page leads along the

shortest path to a page that satisfies the user's request (page 3, right column, fourth full

paragraph). <u>Armstrong et al.</u> does not disclose or suggest that this probability is based on a score

of a document associated with the hyperlink, as would be required by claim 1.

    The Examiner alleged that it would have been obvious to modify <u>Kirsch et al.</u> to include

"modifying the identified page's highlighted link with an icon as taught by [<u>Armstrong et al.</u>],

providing the benefit of helping users locate desired information by employing learned knowledge about which hyperlinks are likely to lead to the target information" (final Office Action, page 3). Applicants disagree.

Kirsch et al. and Armstrong et al. are directed to completely different systems with completely different purposes. For example, Kirsch et al. is directed to performing parallel searches of multiple indexes to produce multiple preliminary or partial search reports and merging the search reports into a final search report (col. 9, lines 6-48). Armstrong et al., on the other hand, is directed to a WebWatcher that recommends links to users to assist the users in arriving at their desired information (Section 2). One of ordinary skill in the art with knowledge of the disclosure of Kirsch et al. would not have been motivated to combine that disclosure with the disclosure of Armstrong et al. absent impermissible hindsight.

In response to this argument, the Examiner alleged that it would have been obvious to combine the disclosures of Kirsch et al. and Armstrong et al. because "both references deal with a locating information on the world wide web" (final Office Action, page 20). Even assuming, for the sake of argument, that the Examiner's allegation is accurate (a point that Applicants do not concede), Applicants contend that it still would not have been obvious to combine the disclosures of Kirsch et al. and Armstrong et al. absent impermissible hindsight.

Kirsch et al. discloses the generation of a final search report that includes a single list of document identifiers that is ranked and ordered based on the relevancy scores (col. 9, lines 25-48; col. 13, lines 30-49). There would be no reason to modify the final search report with an icon to help a user locate desired information in Kirsch et al., because the document identifiers in the final search report are already ranked and sorted based on their relevancy scores. Therefore,

contrary to the Examiner's allegation, it would not have been obvious to combine the disclosures

of <u>Kirsch et al.</u> and <u>Armstrong et al.</u> absent impermissible hindsight.

For at least these reasons, Applicants submit that claim 1 is patentable over <u>Kirsch et al.</u>

and <u>Armstrong et al.</u>, whether taken alone or in any reasonable combination. Claims 2, 4-6, 11,

13, 17, 18, and 22 depend from claim 1 and are, therefore, patentable over <u>Kirsch et al.</u> and

<u>Armstrong et al.</u> for at least the reasons given with regard to claim 1.

Independent claim 24 is directed to a system for modifying a document to aid a user in

determining which entry of a plurality of entries in the document to select. The system

comprises means for identifying a document based on an address associated with the identified

document, where the identified document includes a plurality of entries; means for determining a

score for each of one or more of the entries in the identified document based on a score of a

document associated with the entry; means for modifying the identified document based on the

determined one or more scores; and means for providing the identified document to the user.

Neither <u>Kirsch et al.</u> nor <u>Armstrong et al.</u>, whether taken alone or in any reasonable

combination, discloses or suggests the combination of features recited in claim 24. For example,

neither <u>Kirsch et al.</u> nor <u>Armstrong et al.</u> discloses or suggests means for determining a score for

each of one or more of the entries in a document, identified based on an address associated with

the document, based on a score of a document associated with the entry.

The Examiner alleged that <u>Kirsch et al.</u> discloses this feature and cited column 5, lines

38-42, of <u>Kirsch et al.</u> for support (final Office Action, page 5). Applicants respectfully

disagree.

Column 5, lines 38-42, of <u>Kirsch et al.</u> has been reproduced above. In this section,

Kirsch et al. discloses that the relevancy scores for documents appearing in multiple search

reports are summed to yield aggregate relevancy scores. Nowhere in this section, or elsewhere,

does Kirsch et al. disclose or remotely suggest means for determining a score for each of one or

more of the entries in a document, identified based on an address associated with the document,

based on a score of a document associated with the entry, as required by claim 24.

From the above-identified section, it appears that the Examiner is alleging that the final

search report produced in Kirsch et al. is equivalent to a document identified based on an address

associated with the document, as recited in claim 24. The Examiner admitted, however, that

Kirsch et al. does not disclose means for identifying a document based on an address associated

with the identified document (final Office Action, page 6). The Examiner alleged that

Armstrong et al. discloses this feature (final Office Action, page 6). Even assuming that the

Examiner's allegation is accurate (a point that Applicants do not concede), the Examiner has not

provided any motivation for adding this alleged feature of Armstrong et al. into the system of

Kirsch et al. Therefore, the Examiner has not established a prima facie case of obviousness with

regard to claim 24.

Armstrong et al. discloses a WebWatcher that has learned knowledge of how to search

outward from a page on which it was invoked and uses this knowledge to suggest a hyperlink

that the user should take to get to a page that satisfies the user's search (page 3, left column, first

full paragraph; page 3, right column, fourth full paragraph). Armstrong et al. discloses

highlighting the link that is most promising (page 3, left column, second full paragraph).

Nowhere does Armstrong et al. disclose or suggest, however, means for determining a score for

each of one or more of the entries in a document, identified based on an address associated with

the document, <u>based on a score of a document associated with the entry,</u> as required by claim 24. Instead, <u>Armstrong et al.</u> discloses determining the probability that following a hyperlink on a page leads along the shortest path to a page that satisfies the user's request (page 3, right column, fourth full paragraph). <u>Armstrong et al.</u> does not disclose or suggest that this probability is based on a score of a document associated with the hyperlink, as would be required by claim 24.

The Examiner alleged that it would have been obvious to modify <u>Kirsch et al.</u> to include "modifying the identified page's highlighted link with an icon as taught by [<u>Armstrong et al.</u>], providing the benefit of helping users locate desired information by employing learned knowledge about which hyperlinks are likely to lead to the target information" (final Office Action, page 3). Applicants respectfully disagree for at least reasons similar to reasons given with regard to claim 1.

For at least these reasons, Applicants submit that claim 24 is patentable over <u>Kirsch et al.</u> and <u>Armstrong et al.</u>, whether taken alone or in any reasonable combination.

Independent claims 25, 26, 28, and 31 recite features similar to, but possibly different in scope from, features recited in claims 1 and 24. Claims 25, 26, 28, and 31 are, therefore, patentable over <u>Kirsch et al.</u> and <u>Armstrong et al.</u>, whether taken alone or in any reasonable combination, for at least reasons similar to reasons given with regard to claims 1 and 24.

Claims 29 and 30 depend from claim 28 and are, therefore, patentable over <u>Kirsch et al.</u> and <u>Armstrong et al.</u> for at least the reasons given with regard to claim 28.

Independent claim 27 is directed to a web browser stored in a computer-readable medium and executable by at least one processor. The web browser comprises instructions for requesting documents stored on at least one server based on addresses associated with the documents, one

of the requested documents including a plurality of entries; instructions for determining scores

for each of a number of the entries; instructions for modifying the one of the requested

documents based on the determined scores; and instructions for presenting the modified

document to facilitate selection of one of the entries.

Neither Kirsch et al. nor Armstrong et al., whether taken alone or in any reasonable

combination, discloses or suggests the combination of features recited in claim 27. For example,

neither Kirsch et al. nor Armstrong et al. discloses or suggests a web browser that includes,

among other things, instructions for determining scores for each of a number of the entries,

instructions for modifying the one of the requested documents based on the determined scores,

and instructions for presenting the modified document to facilitate selection of one of the entries.

The Examiner alleged that Kirsch et al. discloses determining scores and Armstrong et al.

discloses modifying the requested documents and presenting the modified documents (final

Office Action, page 8). Applicants respectfully disagree.

Nowhere does Kirsch et al. disclose or remotely suggest a web browser that includes

instructions for determining scores for each of a number of the entries, as required by claim 27.

Instead, Kirsch et al. discloses operations performed by a search site 16 (col. 5, line 24 - col. 6,

line 2), not operations performed by a web browser, as required by claim 27.

In addition, nowhere does Armstrong et al. disclose or remotely suggest a web browser

that includes instructions for modifying the one of the requested documents based on the

determined scores, and instructions for presenting the modified document to facilitate selection

of one of the entries, as required by claim 27. Instead, Armstrong et al. discloses operations

performed by a WebWatcher on a server (Section 2), not operations performed by a web

browser, as required by claim 27.

The Examiner further alleged that Armstrong et al. discloses in Figs. 1 and 4 that a document is modified to include a "pair of eyes" (final Office Action, page 20). Armstrong et al. specifically discloses that the WebWatcher -- not a web browser -- highlights links in a page and returns the modified copy of the page to the user (page 3, left column, lines 48-55). Clearly, the web browser in Armstrong et al. only displays the modified copy of the page received from the WebWatcher and does not do any of the highlighting of links itself, as alleged by the Examiner.

For at least these reasons, Applicants submit that claim 27 is patentable over Kirsch et al. and Armstrong et al., whether taken alone or in any reasonable combination.

Independent claim 33 is directed to a computer-implemented method for modifying a document by a first server in a network that includes the first server and at least one second server. The method comprises receiving a document from the second server, the document including one or more entries; determining a score for a number of the one or more entries; modifying the document based on the determined scores; and sending the modified document to the second server.

Neither Kirsch et al. nor Armstrong et al., whether taken alone or in any reasonable combination, discloses or suggests the combination of features recited in claim 33. For example, neither Kirsch et al. nor Armstrong et al. discloses or suggests sending the modified document to a second server from which the document is received.

The Examiner admitted that Kirsch et al. does not disclose this feature of claim 33, but alleged that Armstrong et al. discloses the feature and cited page 3, left column, top and bottom paragraphs, of Armstrong et al. for support (final Office Action, page 11). Applicants

respectfully disagree.

At page 3, left column, top and bottom paragraphs, Armstrong et al. discloses that the WebWatcher notes the URL of the page from which a user invoked the WebWatcher, receives information from the user, replaces each URL on the page with a new URL that points to the WebWatcher, highlights any of the hyperlinks on the page that are strongly recommended by its search control knowledge, and sends the modified copy of the page to the user. Nowhere in this section, or elsewhere, does Armstrong et al. disclose or suggest sending the modified document to a second server from which the document is received, as required by claim 33.

In response to the argument that Armstrong et al. does not disclose or suggest this feature, the Examiner reversed his position and alleged that Kirsch et al. shows, in Fig. 1, a number of different servers that are different from the document server (final Office Action, page 20). Applicants submit that the Examiner's allegation falls short of establishing a prima facie case of obviousness with regard to claim 33. Claim 33 does not simply recite a number of different servers, but instead recites sending a modified document to a second server from which the document is received. Neither Kirsch et al. nor Armstrong et al. discloses or suggests this feature of claim 33.

For at least these reasons, Applicants submit that claim 33 is patentable over Kirsch et al. and Armstrong et al., whether taken alone or in any reasonable combination.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 2, 4-6, 11, 13, 17, 18, 22, 24-31, and 33 under 35 U.S.C. § 103(a) based on Kirsch et al. and Armstrong et al.

REJECTION UNDER 35 U.S.C. § 103 BASED ON

KIRSCH ET AL., ARMSTRONG ET AL., AND PANT ET AL.

In paragraph 3-2 of the final Office Action, the Examiner rejected claims 3, 12, 14-16, 20, and 23 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kirsch et al. in view of Armstrong et al. and Pant et al. Applicants respectfully traverse the rejection.

Claims 3, 12, 14-16, 20, and 23 depend from claim 1. Without acquiescing in the Examiner's rejection with regard to claims 3, 12, 14-16, 20, and 23, Applicants submit that the disclosure of Pant et al. does not cure the deficiencies in the disclosures of Kirsch et al. and Armstrong et al. identified above with regard to claim 1. Therefore, claims 3, 12, 14-16, 20, and 23 are patentable over Kirsch et al., Armstrong et al., and Pant et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 3, 12, 14-16, 20, and 23 under 35 U.S.C. § 103(a) based on Kirsch et al., Armstrong et al., and Pant et al.

REJECTION UNDER 35 U.S.C. § 103 BASED ON
KIRSCH ET AL., ARMSTRONG ET AL., AND PAGE

In paragraph 3-3 of the final Office Action, the Examiner rejected claims 7, 9, and 10 under 35 U.S.C. 103(a) as being allegedly unpatentable over Kirsch et al. in view of Armstrong et al. and Page. Applicants respectfully traverse the rejection.

Claims 7, 9, and 10 depend from claim 1. Without acquiescing in the Examiner's rejection with regard to claims 7, 9, and 10, Applicants submit that the disclosure of Page does not cure the deficiencies in the disclosures of Kirsch et al. and Armstrong et al. identified above with regard to claim 1. Therefore, claims 7, 9, and 10 are patentable over Kirsch et al.,

Armstrong et al., and Page, whether taken alone or in any reasonable combination, for at least
the reasons given with regard to claim 1.

In addition, claim 7 recites for each of the linked documents, determining scores for one
or more linking documents that contain links to the linked document, determining a score for
each of the linked documents based on the scores of the one or more linking documents, and
associating the determined scores for the linked documents with the corresponding entries in the
identified document.

The Examiner admitted that Kirsch et al. and Armstrong et al. do not disclose the features
of claim 7, but alleged that Page discloses the features (final Office Action, page 14). The
Examiner alleged that it would have been obvious "to modify Kirsch in view of [Armstrong et
al.] to include provide for scoring linked database documents as taught by Page, providing the
motivation to determine the importance of a document" (final Office Action, page 15).
Applicants submit that the Examiner's motivation statement lacks merit.

The Examiner's motivation statement is merely a conclusory statement providing an
alleged benefit of the combination. No portion of any of the references is pointed to as providing
a realistic, objective motivation for combining Page with the disclosure of Kirsch et al. or
Armstrong et al. It is apparent that the Examiner's approach to the ultimate legal conclusion of
obviousness under 35 U.S.C.§ 103 amounts to a retrospective assessment as to how the claimed
invention works and then combining unrelated references in an attempt to arrive at the claimed
invention. This type of reverse engineering approach to the obviousness issue under 35 U.S.C. §
103 has been repeatedly judicially condemned. Absent such hindsight reasoning, one of
ordinary skill in the art would not have been motivated to combine the references in the manner

suggested by the Examiner.

The disclosure of Kirsch et al. is directed to performing parallel searches of multiple indexes to produce multiple preliminary or partial search reports and merging the search reports into a final report, where relevancy scores are determined for documents in the search reports based on a number of occurrences of a term in the documents and the relevancy scores are summed for documents appearing in multiple search reports (col. 9, lines 6-48). Armstrong et al., on the other hand, is directed to a WebWatcher that determines a probability for a link on a page that following the link leads to a shortest path to a page that satisfies the user's goal (page 3, right column, fourth full paragraph). Page discloses a link-based approach for ranking documents (col. 2, lines 39-50). One of ordinary skill in the art would not have been motivated to replace the scoring technique of Kirsch et al. or the probability determination of Armstrong et al. with the link-based approach of Page absent impermissible hindsight reasoning. The Examiner has not provided any realistic, objective motivation for combining the disclosures of Kirsch et al., Armstrong et al., and Page. Accordingly, the Examiner has not established a prima facie case of obviousness with regard to claim 7.

Applicants presented these arguments in a prior response. The Examiner did not address Applicants' arguments. Applicants respectfully request that the Examiner provide a reasonable explanation of why one skilled in the art would have been motivated to make the alleged combination, or withdraw the rejection.

For at least these reasons, Applicants submit that claim 7 is patentable over Kirsch et al., Armstrong et al., and Page, whether taken alone or in any reasonable combination.

The rejection of claims 9 and 10 are similarly deficient for reasons similar to reasons

given with regard to claim 7. Therefore, claims 9 and 10 are patentable over <u>Kirsch et al.</u>,

<u>Armstrong et al.</u>, and <u>Page</u>, whether taken alone or in any reasonable combination, for at least

reasons similar to reasons given with regard to claim 7.

      Accordingly, Applicants respectfully request reconsideration and withdrawal of the

rejection of claims 7, 9, and 10 under 35 U.S.C. § 103(a) based on <u>Kirsch et al.</u>, <u>Armstrong et al.</u>,

and <u>Page</u>.

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REJECTION UNDER 35 U.S.C. § 103 BASED ON
<u>KIRSCH ET AL.</u>, <u>ARMSTRONG ET AL.</u>, AND <u>LAZARUS ET AL.</u>

</div>

      In paragraph 3-4 of the final Office Action, the Examiner rejected claim 8 under 35

U.S.C. § 103(a) as being allegedly unpatentable over <u>Kirsch et al.</u> in view of <u>Armstrong et al.</u>

and <u>Lazarus et al.</u> Applicants respectfully traverse the rejection.

      Claim 8 depends from claim 1. Without acquiescing in the Examiner's rejection with

regard to claim 8, Applicants submit that the disclosure of <u>Lazarus et al.</u> does not cure the

deficiencies in the disclosures of <u>Kirsch et al.</u> and <u>Armstrong et al.</u> identified above with regard

to claim 1. Therefore, claim 8 is patentable over <u>Kirsch et al.</u>, <u>Armstrong et al.</u>, and <u>Lazarus et</u>

<u>al.</u>, whether taken alone or in any reasonable combination, for at least the reasons given with

regard to claim 1.

      In addition, claim 8 recites determining a clickthrough rate for each of the linked

documents, determining a score for each of the linked documents based on the determined

clickthrough rates, and associating the determined scores for the linked documents with the

corresponding entries in the identified document.

      The Examiner admitted that <u>Kirsch et al.</u> and <u>Armstrong et al.</u> do not disclose or suggest,

for example, determining a score for each of the linked documents based on the determined

clickthrough rates (final Office Action, page 16). The Examiner alleged that Lazarus et al.

discloses this feature and cited col. 26, lines 15-55, of Lazarus et al. for support (final Office

Action, page 16). Applicants respectfully disagree.

At col. 26, lines 15-55, Lazarus et al. discloses:

If the user requests a web page to read 218, the user profile vector is modified by the
content vector of the requested web page.

The updated profile vector is then used as the basis for selecting relevant ads to display to
the user. Relevance is determined by closeness of the user profile vector to entity vectors
stored in the ad vector database. The closest entity vector is selected as being most
relevant.

If the user is presented an ad, and the user requests more information of the subject of the
ad by clicking on the ad, both the current ad entity vector and the profile vector are
updated. The user profile vector is moved or adapted a small step in the direction of the
entity vector. The entity vector is moved or adapted a small step in the direction of the
profile vector of the person who clicked on the ad. Thus, the system allows ads to assume
the characteristics of the users that purchase them in a real-time adaptive manner.

Discovery and Analysis Mode

During discovery and analysis mode, at periodic intervals, the system administrator
performs relationship discovery and analysis of the contents of both the entity vector
database 230 and the user profile vector database 226 to discover useful and exploitable
characteristics of user behavior. The RDA module 236 performs vector clustering,
reporting and provides summary statistical information of system effectiveness in terms
of user clickthrough rate. The behavior clusters discovered during analysis serves as the
basis of advertising campaigns and provides valuable insight into user behavioral
preferences. The behavior clusters can be utilized as the initial conditions for entity
vectors the advertiser wants to target by group, rather than on an individual basis.

The system shown in FIG. 2 has two sets of adaptive components. First are the user
profile vectors. Second are the content vectors for each of the advertisements. Both sets
of vectors influence each other based upon the actions of the users. Ads are updated in
such a manner as to adapt toward regions of high user interest, thus improving system
effectiveness and automatically discovering group preferences. User profile vectors adapt
based on the observed actions of the user, thus providing an accurate and timely
representation of user preferences both individually and as a group.

In this section, Lazarus et al. discloses a technique for selecting ads to display to a user based on

a closeness of a user profile vector to entity vectors stored in a database. Nowhere in this

section, or elsewhere, does Lazarus et al. disclose or remotely suggest determining a score for

each of the linked documents based on the determined clickthrough rates, as required by claim 8.

The Examiner alleged that it would have been obvious to "modify Kirsch in view of

[Armstrong et al.] to include determining a clickthrough rate as taught in [Lazarus et al.],

providing the benefit of selecting and presenting personally targeted entities such as advertising,

… based on observed user behavior . . . for practical and financial reasons" (final Office Action,

page 16). Applicants submit that the Examiner's motivation statement lacks merit.

The Examiner's motivation statement is merely a conclusory statement providing an

alleged benefit of the combination. No portion of any of the references is pointed to as providing

a realistic, objective motivation for combining Lazarus et al. with the disclosure of Kirsch et al.

or Armstrong et al. It is apparent that the Examiner's approach to the ultimate legal conclusion

of obviousness under 35 U.S.C.§ 103 amounts to a retrospective assessment as to how the

claimed invention works and then combining unrelated references in an attempt to arrive at the

claimed invention. This type of reverse engineering approach to the obviousness issue under 35

U.S.C. § 103 has been repeatedly judicially condemned. Absent such hindsight reasoning, one

of ordinary skill in the art would not have been motivated to combine the references in the

manner suggested by the Examiner.

Kirsch et al. is directed to performing parallel searches of multiple indexes to produce

multiple preliminary or partial search reports and merging the search reports into a final report,

where relevancy scores are determined for documents in the search reports based on a number of

occurrences of a term in the documents, and the relevancy scores are summed for documents

appearing in multiple search reports (col. 9, lines 6-48). Armstrong et al., on the other hand, is

directed to a WebWatcher that determines a probability for a link on a page that following the

link leads to a shortest path to a page that satisfies the user's goal (page 3, right column, fourth

full paragraph). Lazarus et al. is directed to presenting targeted advertisements to a user based

on observed user behavior (Abstract). One of ordinary skill in the art would not have been

motivated to replace the scoring technique of Kirsch et al. or the probability determination of

Armstrong et al. with the targeted advertising of Lazarus et al. absent impermissible hindsight

reasoning. The Examiner has not provided any realistic, objective motivation for combining the

disclosures of Kirsch et al., Armstrong et al., and Lazarus et al. Accordingly, the Examiner has

not established a prima facie case of obviousness with regard to claim 8.

In response to this argument, the Examiner alleged that "Lazarus does disclose more

relevant matches for user queries (as is the inventive subject matter of the instant application)"

(final Office Action, page 20). This parenthetical allegation by the Examiner shows a

misunderstanding of the invention described and claimed in Applicants' specification.

Applicants invite the Examiner to re-read Applicants' specification. Nevertheless, Applicants

submit that the Examiner's allegation regarding Lazarus et al. falls far short of providing the

necessary motivation for combining the alleged feature of Lazarus et al. with the system of

Kirsch et al. or Armstrong et al.

For at least these reasons, Applicants submit that claim 8 is patentable over Kirsch et al.,

Armstrong et al., and Lazarus et al., whether taken alone or in any reasonable combination.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the

rejection of claim 8 under 35 U.S.C. § 103(a) based on Kirsch et al., Armstrong et al., and

Lazarus et al.

<div align="center">

REJECTION UNDER 35 U.S.C. § 103 BASED ON
KIRSCH ET AL., ARMSTRONG ET AL., AND BROWN ET AL.

</div>

In paragraph 3-5 of the final Office Action, the Examiner rejected claims 19 and 21 under

35 U.S.C. § 103(a) as being allegedly unpatentable over Kirsch et al. in view of Armstrong et al.

and Brown et al. Applicants respectfully traverse the rejection.

Claims 19 and 21 depend from claim 1. Without acquiescing in the Examiner's rejection

with regard to claims 19 and 21, Applicants submit that the disclosure of Brown et al. does not

cure the deficiencies in the disclosures of Kirsch et al. and Armstrong et al. identified above with

regard to claim 1. Therefore, claims 19 and 21 are patentable over Kirsch et al., Armstrong et

al., and Brown et al., whether taken alone or in any reasonable combination, for at least the

reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the

rejection of claims 19 and 21 under 35 U.S.C. § 103(a) based on Kirsch et al., Armstrong et al.,

and Brown et al.

<div align="center">

REJECTION UNDER 35 U.S.C. § 103 BASED ON KIRSCH ET AL.

</div>

In paragraph 3-6 of the final Office Action, the Examiner rejected claims 32 and 34 under

35 U.S.C. § 103(a) as being allegedly unpatentable over Kirsch et al. Applicants respectfully

traverse the rejection.

Independent claim 32 is directed to a first server in a network including the first server

and a plurality of second servers. The first server comprises a memory configured to store

instructions; and a processor configured to execute the instructions in the memory to obtain,

from one of the second servers, one or more entries from a document, determine one or more

scores for the one or more entries, and return the one or more scores to the one second server.

Kirsch et al. does not disclose or suggest the combination of features recited in claim 32.

For example, Kirsch et al. does not disclose or suggest a processor to obtain, from one of the

second servers, one or more entries from a document, determine one or more scores for the one

or more entries, and return the one or more scores to the one second server.

The Examiner did not specifically address the features of claim 32, but alleged that

Kirsch et al. discloses a document server attached to multiple database servers distributed within

a search site and a skilled artisan would consider these distributed servers as equivalent to the

second server recited in claim 32 to determine scores for entries from a predetermined document

from a collection of documents (final Office Action, page 18). Even assuming, for the sake of

argument, that the Examiner's allegation is valid (a point that Applicants do not concede), Kirsch

et al. does not disclose a first server that obtains, from one of the distributed servers of Kirsch et

al. (which the Examiner alleged was equivalent to the second servers), one or more entries from

a document, determines one or more scores for the one or more entries, and returns the one or

more scores to the one distributed server, as would be required by claim 32.

For at least these reasons, Applicants submit that claim 32 is patentable over Kirsch et al.

Independent claim 34 is directed to a first server in a network that includes the first server

and at least one second server. The first server comprises a memory configured to store

instructions; and a processor configured to execute the instructions in the memory to obtain a

document that includes one or more entries from the second server, determine a score for a

number of the one or more entries, modify the one or more entries based on the determined

scores, and send the document with the modified one or more entries to the second server.

Kirsch et al. does not disclose or suggest the combination of features recited in claim 34. For example, Kirsch et al. does not disclose or suggest a processor to obtain a document that includes one or more entries from the second server, determine a score for a number of the one or more entries, modify the one or more entries based on the determined scores, and send the document with the modified one or more entries to the second server.

The Examiner did not specifically address the features of claim 34, but alleged that Kirsch et al. discloses a document server attached to multiple database servers distributed within a search site and a skilled artisan would consider these distributed servers as equivalent to the second server recited in claim 34 to determine scores for entries from a predetermined document from a collection of documents (final Office Action, page 18). Even assuming, for the sake of argument, that the Examiner's allegation is valid (a point that Applicants do not concede), Kirsch et al. does not disclose a first server that obtains a document that includes one or more entries from the distributed server, determines a score for a number of the one or more entries, modifies the one or more entries based on the determined scores, and sends the document with the modified one or more entries to the distributed server, as would be required by claim 34.

For at least these reasons, Applicants submit that claim 34 is patentable over Kirsch et al.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 32 and 34 under 35 U.S.C. § 103(a) based on Kirsch et al.

REJECTION UNDER 35 U.S.C. § 103 BASED ON BALLARD AND ARMSTRONG ET AL.

In paragraph 3-7 of the final Office Action, the Examiner rejected claim 37 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ballard in view of Armstrong et al.

Applicants respectfully traverse the rejection.

Independent claim 37 is directed to a client device that comprises a browser to receive an input from a user, request a document based on the input, the document including a plurality of links to other documents; and a browser assistant to intercept the document, parse the document to identify the links in the document, determine a score for each of a number of the links, modify the document based on the determined scores, and present the modified document to the user.

Neither Ballard nor Armstrong et al., whether taken alone or in any reasonable combination, discloses or suggests the combination of features recited in claim 37. For example, Ballard and Armstrong et al. do not disclose or suggest a browser assistant, on a client device, that is configured to, among other things, intercept a document, parse the document to identify the links in the document, determine a score for each of a number of the links, or modify the document based on the determined scores.

The Examiner alleged that Ballard discloses determining a score for each of the links and cited column 2, lines 56-57, of Ballard for support (final Office Action, page 19). Applicants disagree.

At column 2, lines 56-57, Ballard discloses " . . . identify which keywords occur only in the documents categorized as being of interest (i.e., good keywords) . . . ." Nowhere in this section, or elsewhere, does Ballard disclose or remotely suggest a browser assistant, on a client device, that is configured to determine a score for each of a number of the links in a document, as required by claim 37.

The Examiner admitted that Ballard does not disclose a browser assistant to intercept a document, parse the document to identify the links in the document, determine a score for each

of the links, or modify the document based on the determined scores (final Office Action, page

19). The Examiner alleged that <u>Armstrong et al.</u> discloses these features and cited Figs. 1 and 4

of <u>Armstrong et al.</u> for support (final Office Action, page 19). Applicants disagree.

<u>Armstrong et al.</u> discloses operations performed by a WebWatcher on a server (Section

2), not operations performed by a <u>client device,</u> as required by claim 37. <u>Armstrong et al.</u>

specifically discloses that the WebWatcher, not a browser assistant on a client device, highlights

links in a page and returns the modified copy of the page to the user (page 3, left column, lines

48-55). Clearly, the client device in <u>Armstrong et al.</u> only displays the modified copy of the

page received from the WebWatcher and does not do any of the highlighting of links itself, as

alleged by the Examiner.

For at least these reasons, Applicants submit that claim 37 is patentable over <u>Ballard</u> and

<u>Armstrong et al.,</u> whether taken alone or in any reasonable combination.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the

rejection of claim 37 under 35 U.S.C. § 103(a) based on <u>Ballard</u> and <u>Armstrong et al.</u>

NEW CLAIMS

New independent claim 38 is directed to a computer-implemented method for modifying

a document to aid a user in determining which link of a plurality of links in the document to

choose. The method comprises identifying, by a client device, a document that is stored on a

server in a network and that includes a plurality of links; determining, by the client device, a

score for each of a number of the links in the identified document based on a score of an

associated document pointed to by the link; modifying, by the client device, the identified

document based on the determined scores; and providing, by the client device, the modified

document to the user.

The references relied upon by the Examiner do not disclose or suggest the combination of features recited in claim 38. For example, the references do not disclose a client device that performs the operations recited in claim 38.

For at least these reasons and reasons similar to reasons given above with regard to other claims, Applicants submit that claim 38 is patentable over the references relied upon by the Examiner.

New independent claim 39 is directed to a computer-implemented method for modifying a document to aid a user in determining which link of a plurality of links in the document to choose. The method comprises identifying a document that is stored on a server in a network and that includes a plurality of links; determining a score for each of a number of the links in the identified document based on a score of an associated document pointed to by the link; modifying the identified document based on the determined scores, where the modifying includes reordering at least two of the links based on the determined scores, or sorting at least two of the links based on the determined scores; and providing the modified document to the user.

The references relied upon by the Examiner do not disclose or suggest the combination of features recited in claim 39. For example, the references do not disclose or suggest modifying an identified document based on determined scores, where the modifying includes reordering at least two of the links based on the determined scores, or sorting at least two of the links based on the determined scores.

For at least these reasons and reasons similar to reasons given above with regard to other

claims, Applicants submit that claim 39 is patentable over the references relied upon by the

Examiner.

New independent claim 40 is directed to a computer-implemented method for modifying

a document to aid a user in determining which link of a plurality of links in the document to

choose. The method comprises identifying a document that is stored on a server in a network

and that includes a plurality of links; determining a score for each of a number of the links in the

identified document based on a score of an associated document pointed to by the link, where the

score for one of the links is based on one of a score of a linking document that links to the

associated document, a clickthrough rate for the associated document, a popularity of the

associated document, or a match of a term to a content of the associated document; modifying

the identified document based on the determined scores; and providing the modified document to

the user.

The references relied upon by the Examiner do not disclose or suggest the combination of

features recited in claim 40. For example, the references do not disclose or suggest determining

a score for each of a number of links in an identified document based on a score of an associated

document pointed to by the link, where the score for one of the links is based on one of a score

of a linking document that links to the associated document, a clickthrough rate for the

associated document, a popularity of the associated document, or a match of a term to a content

of the associated document.

For at least these reasons and reasons similar to reasons given above with regard to other

claims, Applicants submit that claim 40 is patentable over the references relied upon by the

Examiner.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of the pending claims.

As Applicants' remarks with respect to the Examiner's rejections overcome the rejections, Applicants' silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, etc.) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to dispute these assertions/requirements in the future.

If the Examiner believes that the application is not now in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned to discuss any outstanding issues.

To the extent necessary, a petition for an extension of time under 35 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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